

**BACKGROUND:**

Granulocyte Macrophage Colony Stimulating Factor, GM-CSF, is hematopoietic factor produced by endothelial cells, monocytes, fibroblasts and T cells in response to a number of inflammatory mediators. GM-CSF is able to stimulate the production of neutrophilic granulocytes, macrophages, and mixed granulocyte-macrophage colonies from bone marrow cells. GM-CSF can also stimulate some functional activities in mature granulocytes and macrophages. Human and mouse GM-CSF show no cross-reactivity.

Recombinant mouse GM-CSF is a non-glycosylated protein, containing 125 amino acids and having a molecular mass of 14.3 kDa.

**Cat. No.:**  
RP2015AF

**Alternate Names:**  
CSF-2, Pluripoietin- $\alpha$ , MGI1GM

**AA Sequence:**

MAPTRSPITV	TRPWKHVEAI	KEALNLLDDM
PVTLNEEVEV	VSNEFSFKKL	TCVQTRLKIF
EQGLRGNFTK	LKGALNMTAS	YYQTYCPPTP
ETDCETQVTT	YADFIDSLKT	FLTDIPFECK
KPVQK		

**TECHNICAL INFO**

**Source:**  
*E. coli*

**Physical Appearance:**  
Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**  
10 mM acetic acid

**Stability:**  
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**  
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/mL, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**  
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**  
The activity is measured by dose-dependent FDCP-1 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 50 pg/mL.

**Animal Component-Free**  
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

